

Application No. 10/091,119
Amendment dated June 3, 2004
Page 2

Amendments to the Claims:

The following claims will replace all prior versions of the claims in this application (in the unlikely event that no claims follow herein, the previously pending claims will remain):

1. (Previously presented) A radiation-curable composition comprising:
 - (i) a cationically polymerizable component;
 - (ii) a cationic photoinitiator;
 - (iii) a free radical polymerizable component selected from the group consisting of
 - (a) non-aromatic free radical polymerizable components comprising at least one C₂-C₄ ether group; and
 - (b) aromatic free radical polymerizable components comprising more than four C₂-C₄ ether groups;
 - (iv) a free radical photoinitiator; and
 - (v) a hydroxy-functional component selected from the group consisting of polyether polyols;wherein the composition, after cure, has a clarity of more than 90%.
2. (Previously presented) The composition of claim 1, wherein said free radical polymerizable component is selected from the group consisting of:
 - (a) non-aromatic free radical polymerizable components comprising at least ~~one~~ two C₂-C₄ ether groups; and
 - (b) aromatic free radical polymerizable components comprising more than four C₂-C₄ ether groups.
3. (Cancelled).
4. (Previously presented) The composition of claim 1, wherein said free radical polymerizable component is selected from the group consisting of alkoxyated bisphenol A diacrylate, tripropyleneglycol diacrylate, polypropyleneglycol dimethacrylate, alkoxyated neopentylglycol diacrylate, alkoxyated hexanediol diacrylate, polytetrahydrofuran diacrylate, and alkoxyated trimethylolpropane triacrylate.

Application No. 10/091,119
Amendment dated June 3, 2004
Page 3

5. (Currently amended) The composition of claim 1, wherein said free radical polymerizable component ~~component~~ is a diacrylate component.
6. (Original) The composition of claim 5, further comprising a free radical polymerizable component having at least three radiation-curable groups.
7. (Previously presented) The composition of claim 1, wherein said composition is absent caprolactone acrylate.
8. (Previously presented) A process for producing a three-dimensional object comprising:
(1) coating a thin layer of the composition of claim 1 onto a surface;
(2) exposing said thin layer imagewise to actinic radiation to form an imaged cross-section, wherein the radiation is of sufficient intensity to cause substantial curing of the thin layer in the exposed areas;
(3) coating a thin layer of the composition of claim 1 onto the previously exposed imaged cross-section;
(4) exposing said thin layer from step (3) imagewise to actinic radiation to form an additional imaged cross-section, wherein the radiation is of sufficient intensity to cause substantial curing of the thin layer in the exposed areas and to cause adhesion to the previously exposed imaged cross-section;
(5) repeating steps (3) and (4) a sufficient number of times in order to build up the three-dimensional article.
9. (Original) A three dimensional object obtained by the process of claim 8.
- 10-15. (Cancelled).
16. (Previously presented) The radiation-curable composition of claim 1, wherein said radiation-curable composition comprises, relative to the total weight of the composition, at most 15 wt% of said free radical polymerizable component.

Application No. 10/091,119
Amendment dated June 3, 2004
Page 4

17. (Previously presented) The radiation-curable composition of claim 1, wherein said radiation-curable composition comprises, relative to the total weight of the composition, 3-10 wt% of said free radical polymerizable component.

18. (Original) The radiation-curable composition of claim 1, wherein said cationically polymerizable component is an epoxy resin.

19. (Original) The radiation-curable composition of claim 1, wherein said cationically polymerizable component includes a cyclohexene oxide component.

20. (Cancelled).

21. (Previously presented) The radiation-curable composition of claim 1, wherein said cationic photoinitiator comprises antimonate.

22-23. (Cancelled).

24. (Previously presented) The radiation-curable composition of claim 1, wherein said composition further comprises a free radical polymerizable component having at least 5 free radical polymerizable groups.

25-31 (Cancelled).

32. (Currently amended) The composition of claim 1, wherein said hydroxy-functional component is selected from the group consisting of polyoxypropylene glycols and polyoxypropylene triols of molecular weights from about 200 to about 10,000.

33-44. (Cancelled).